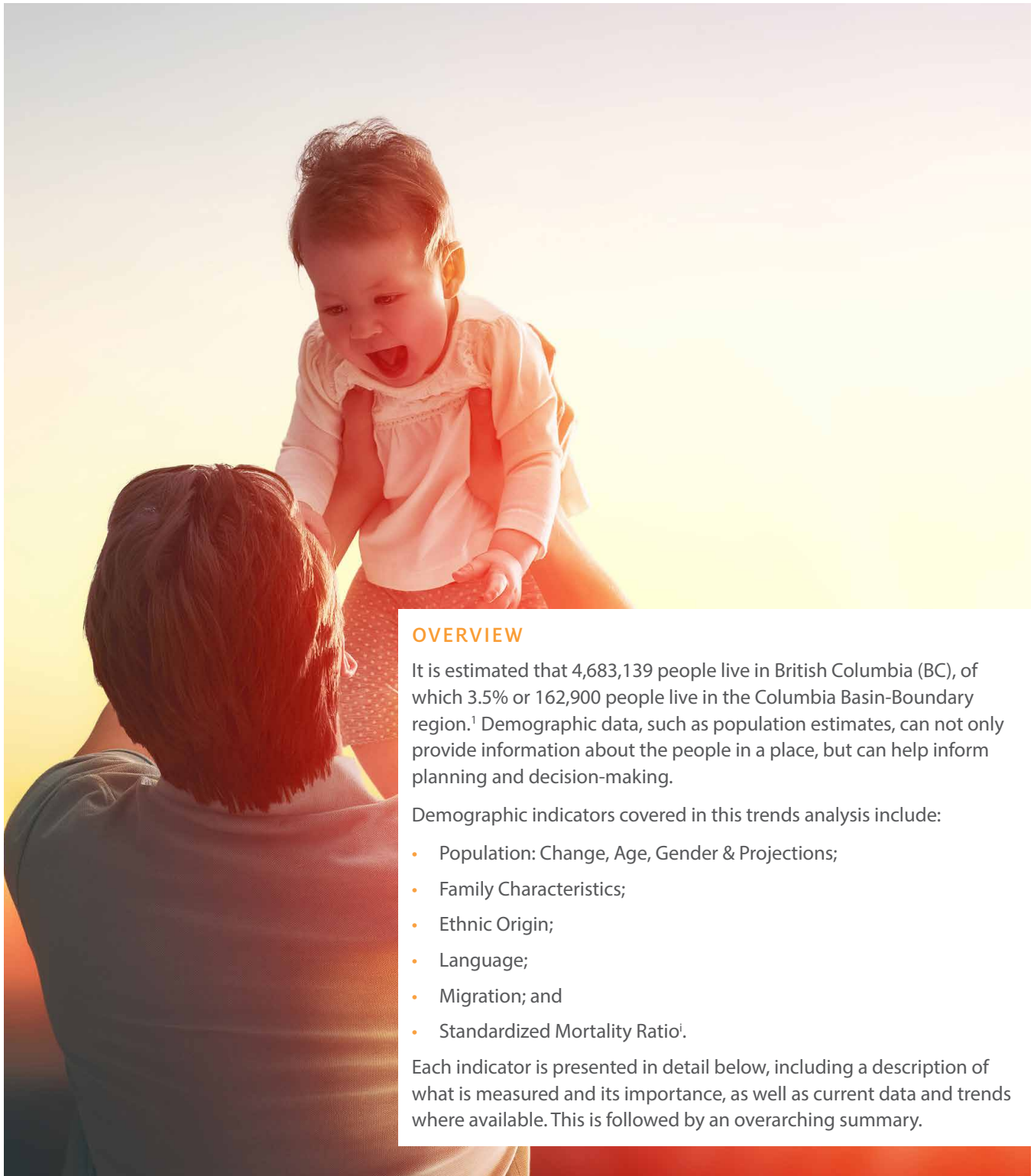


# Trends Analysis: Demographics



## OVERVIEW

It is estimated that 4,683,139 people live in British Columbia (BC), of which 3.5% or 162,900 people live in the Columbia Basin-Boundary region.<sup>1</sup> Demographic data, such as population estimates, can not only provide information about the people in a place, but can help inform planning and decision-making.

Demographic indicators covered in this trends analysis include:

- Population: Change, Age, Gender & Projections;
- Family Characteristics;
- Ethnic Origin;
- Language;
- Migration; and
- Standardized Mortality Ratio<sup>1</sup>.

Each indicator is presented in detail below, including a description of what is measured and its importance, as well as current data and trends where available. This is followed by an overarching summary.

<sup>1</sup>The Standard Mortality Ratio compares the number of deaths that occurred in a specific area to the number of deaths expected for that area based on provincial age specific mortality rates.<sup>11</sup>

## POPULATION: CHANGE, AGE, GENDER & PROJECTIONS

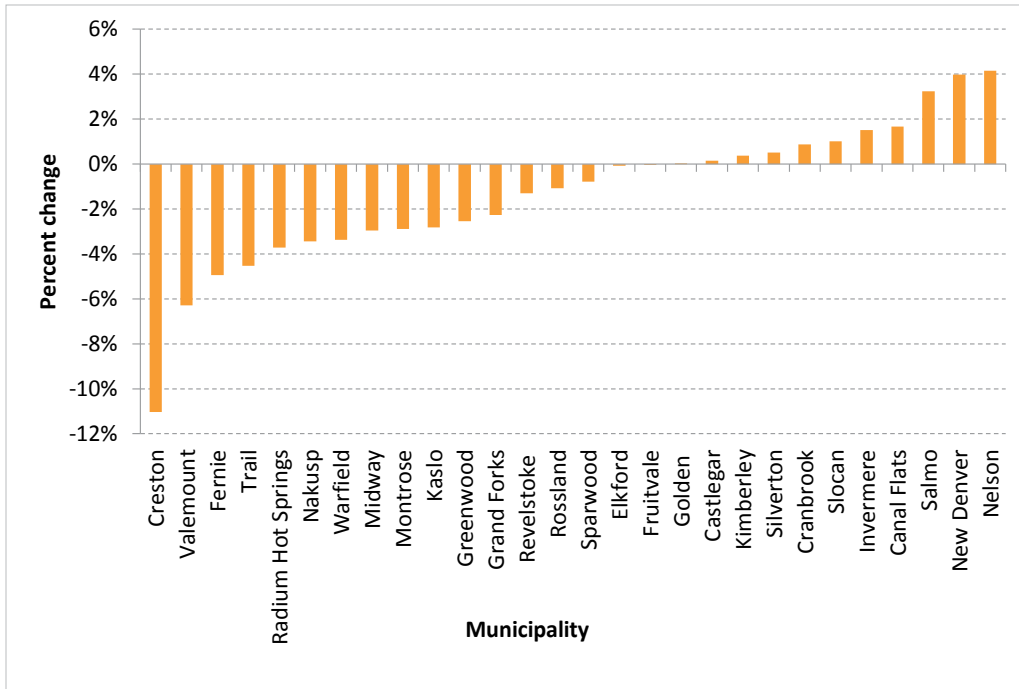
### WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator measures the total number of people in the region in five-year age groups, or ‘cohorts’, reported by gender. Data for this indicator are typically gathered from Statistics Canada’s Census, but as the newest census results will not be available until 2017, data were taken from the annual BC Stats population estimates and projections.<sup>1,2</sup> Data are presented by municipality and local health area.

As we age, our needs change. Education, recreation, employment, childcare, transportation, and healthcare are all examples of needs that can change and differ with age and gender. By tracking changes in the structure of our population, decision-makers are better able to plan for changing needs and priorities. Changes in population can also be indicative of economic change – both positive and negative.

### WHAT ARE THE TRENDS & CURRENT CONDITIONS?

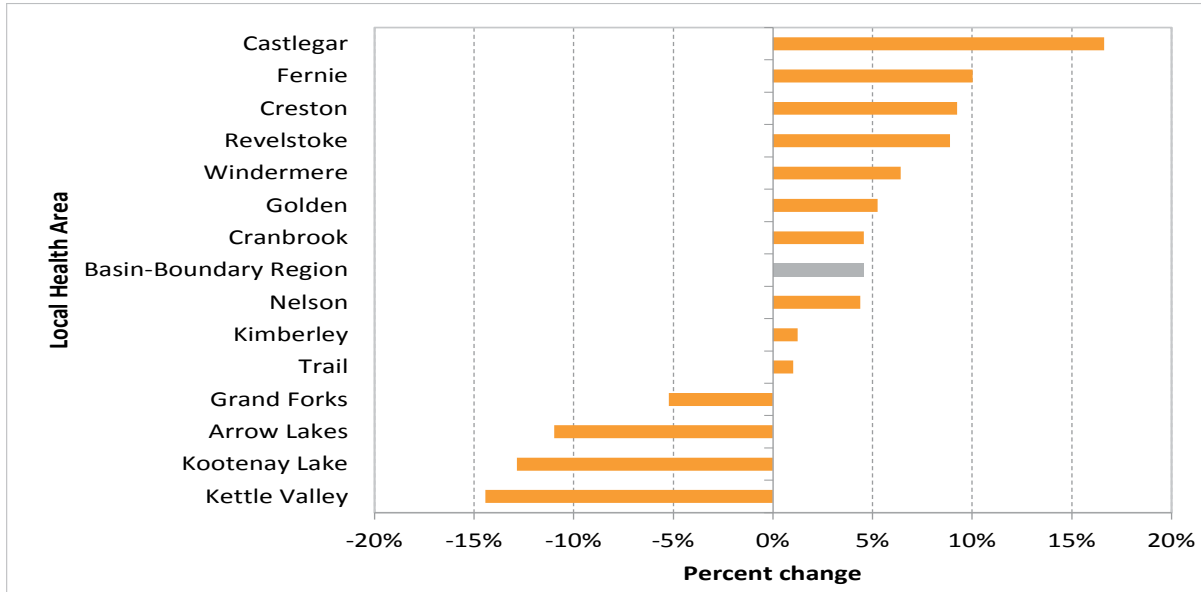
In 2011, there were about 164,200 people living in the region and in 2015 there were 162,900, a decrease of less than 1%.<sup>1</sup> While the size of the population has stayed relatively constant at the regional scale, these numbers vary by municipality (see **Figure 1**). Over the 2011 to 2015 period, a population increase was reported for 11 of 28 municipalities, with Nelson leading at a 4% increase. A population decrease was reported for 17 municipalities, with Creston showing the biggest decrease at -11%. Notably, Creston’s estimates show a decrease of -5.4% from 2014 to 2015.



**Figure 1:** Percent change in population estimates for Columbia Basin-Boundary municipalities between 2011 and 2015<sup>1</sup>

<sup>1</sup>The 2011 estimate provided by BC Stats is roughly 3,000 higher than the 2011 figure reported by Statistics Canada as a result of the Census. BC Stats accounts for this discrepancy by confirming that their estimates consider the results of a post-Census study of the number of individuals that, for one reason or another, were not counted in the Census.<sup>13</sup>

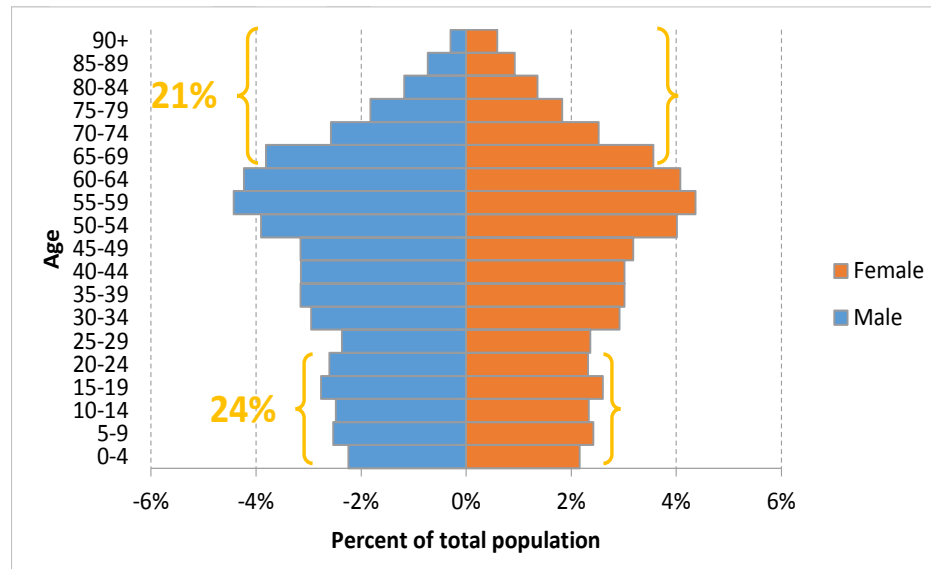
The Columbia Basin-Boundary region population as a whole<sup>iii</sup> is projected to grow by about 7,500 residents over the next 20 years, representing an overall increase of 4.5%.<sup>2</sup> As compared to the overall province of BC, this rate of growth is low. The total provincial population is projected to grow by 23% over the same time period. Again, projections vary by community within our region (see **Figure 2**). For example, the Castlegar Local Health Area is projected to grow at the highest rate (17%), while the Kettle Valley is projected to experience the greatest overall population decline (-14%).



**Figure 2:** Percent change between 2016 and 2035 projected total population by Local Health Area<sup>2</sup>

The latest age-specific population estimates for the region show a bulge in the ‘baby boomer’ population (age 50 to 70) who have retired, or will be retiring over the next 10 to 15 years (see **Figure 3**). Demographers commonly compare the youth cohort (0 to 25 years) to the senior cohort (65+ years) to understand the relative size of the components of the population that are typically considered to be dependent on the working population.

The 2015 population pyramid for our region shows 24% of the population are under 25, and 21% of the population are over 65. Since at least the 1980s, the ratio of seniors to youth in our region has gradually shifted. Given this gradual change, the senior component is projected to overtake the youth component by 2019.



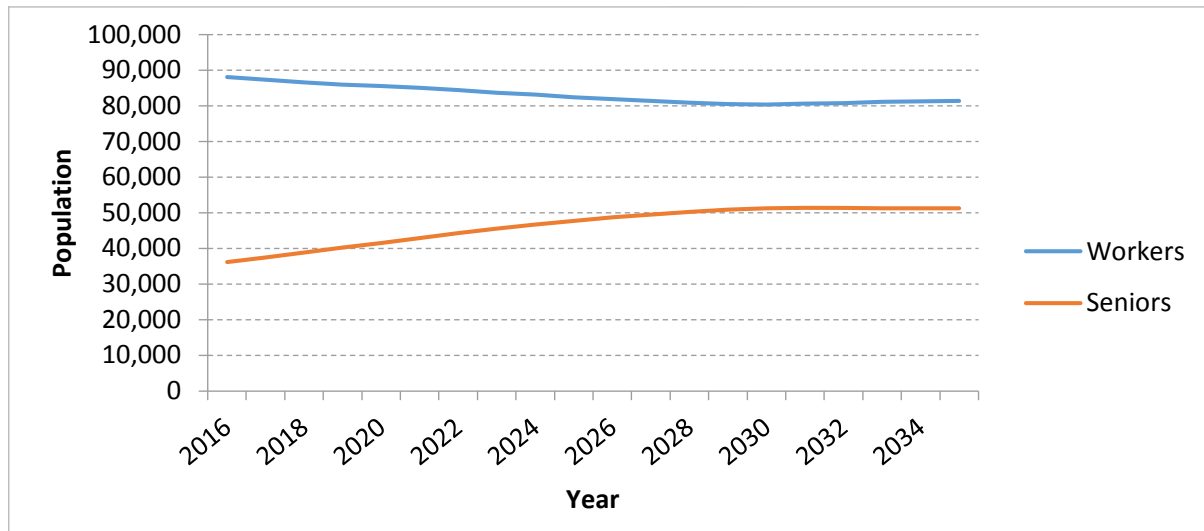
**Figure 3:** Columbia Basin-Boundary population by 5-year age cohort and gender, 2015<sup>2</sup>

<sup>iii</sup>Population projection calculations exclude Valemount as they are based on figures provided to the geographic scale of the Local Health Area (LHA). The Prince George LHA, of which Valemount is a part, includes a major population centre that is not included within the boundaries of the Columbia Basin-Boundary region.

# Demographics

Though our region is generally aging, population structure varies by community. At the time of the 2011 Census, there was an over 20-year difference in median age between the population in Golden (38.1 years) and Midway (58.3 years). Of note, the median age for British Columbia was 41.9 years and for Canada was 40.6 years. Community-specific population data are available on the [Digital Basin](#).<sup>3</sup>

As the baby boomer cohort ages and birth rates decline, the North American population as a whole is aging. This is particularly relevant to our region, where the senior population is projected to grow by 42% over the 20-year period between 2016 and 2035. Over that same period, the size of the working population (25 to 64 years) is projected to decline by 7%, resulting in a projected population structure that suggests only 1.6 workers for every senior by the year 2035 (see **Figure 4**).



**Figure 4:** Projected Columbia Basin-Boundary region population of workers and seniors, 2016-2035<sup>2</sup>

## FAMILY CHARACTERISTICS

### WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

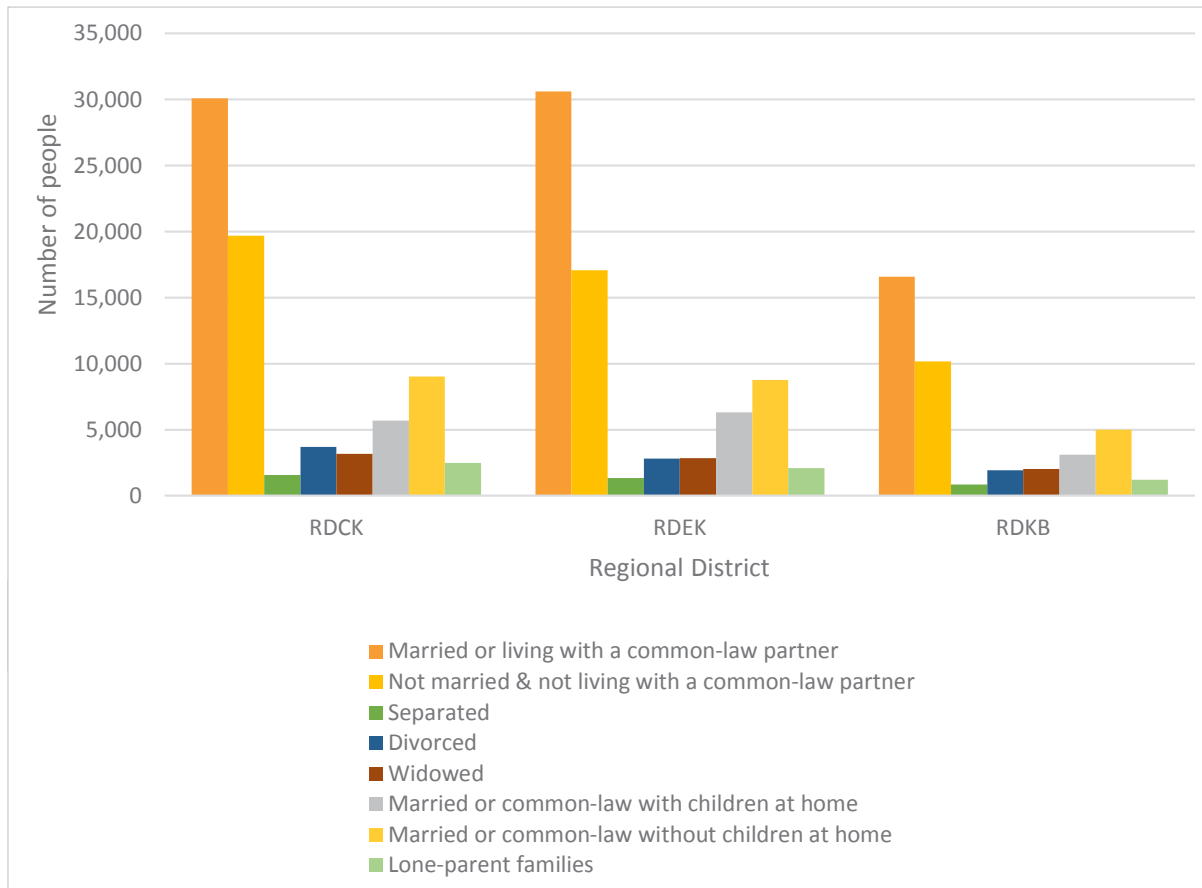
Beyond population numbers, age, and gender, there are a number of other demographic considerations that can help inform planning and decision-making. Family characteristics such as marital status, size of families, and family make-ups can help inform related social, economic, health, and education programming, as well as planning and development around infrastructure needs (e.g., housing). These data are taken from the 2011 Census profiles.<sup>4</sup>

### WHAT ARE THE TRENDS & CURRENT CONDITIONS?

Family characteristics are new indicators to the [State of the Basin](#) reporting.<sup>5</sup> What is reported for 2016 provides a point of comparison for future years when the new census data is released in 2017.

**Figure 5** provides an overview of family characteristics across the three Kootenay Regional Districts (i.e., Regional District of Central Kootenay (RDCK), East Kootenay (RDEK), and Kootenay Boundary (RDKB))<sup>iv</sup>. As shown, there are more people married or living with a common-law partner than not. There are also more couples (married or common-law) without children at home than there are with children at home. Considering the age information described above relating to age, this could corroborate the overall aging trend (i.e., older parents whose kids have left home). However, this could also be indicative of couples electing not to have children. When questions arise about trends of couples not having children, or older couples whose kids have returned home, these family characteristic profiles can provide a good place to start that investigation.

The family characteristics statistics also show there is a total of 5,815 lone-parent families across all three Regional Districts – of which the majority, 4,325 or 74%, are female parents, slightly less than the provincial and national averages of 78%.<sup>4</sup> This information, when combined with data from the [Poverty Trends Analysis](#) may be useful in informing various social programs.



**Figure 5:** Family characteristics by Regional District<sup>iv</sup>

<sup>iv</sup>Communities outside these three Regional Districts were not included because their surrounding Regional District is not necessarily indicative of the make-up of individual communities and the scale difference between Regional Districts and communities makes it difficult to portray.<sup>11</sup>

<sup>v</sup>Total numbers are higher than total population as there can be overlap (e.g., someone can be widowed and married or living with a (different) common law partner).

## ETHNIC ORIGIN

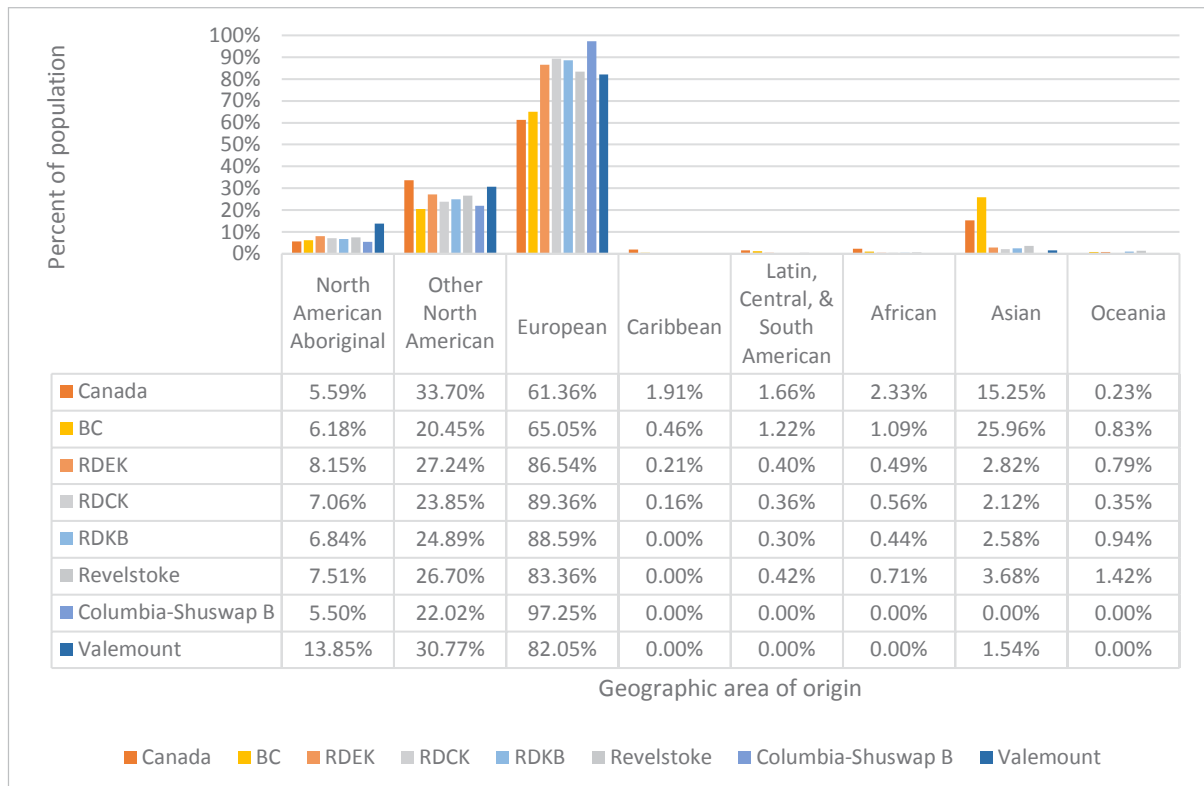
### WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator includes two measures, both taken from the 2011 National Household Survey.<sup>6</sup> First, ethnic origin by geographic area. Second, population that identifies as Aboriginal, including those who identify as First Nations, Metis, or Inuk (Inuit), those with Registered or Treaty Indian Status, and those who report membership in a First Nation or Indian Band.<sup>6</sup>

Both measures are indicative of cultural diversity. According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), “diversity widens the range of options open to everyone, it is one of the roots of development, understood not simply in terms of economic growth, but also as a means to achieve a more satisfactory intellectual, emotional, moral, and spiritual existence.”<sup>7</sup> Understanding the cultural makeup of the region can serve to inform needs around policy and programs relating to cultural heritage, as well as potential opportunities for development (e.g., cultural tourism).

### WHAT ARE THE TRENDS & CURRENT CONDITIONS?

Similar to family characteristics, the above measures are new. Data provide a snapshot of regional diversity, showing the three Kootenay Regional Districts, communities outside those districts, the province, and the country. When ethnic origin is shown by percentage it is possible to compare within the Columbia Basin-Boundary region, as well as to the province and the country. Percentages are provided nationally, provincially, and by regional district, but also includes those areas that fall outside the three fully contained regional districts (see **Figure 6**).

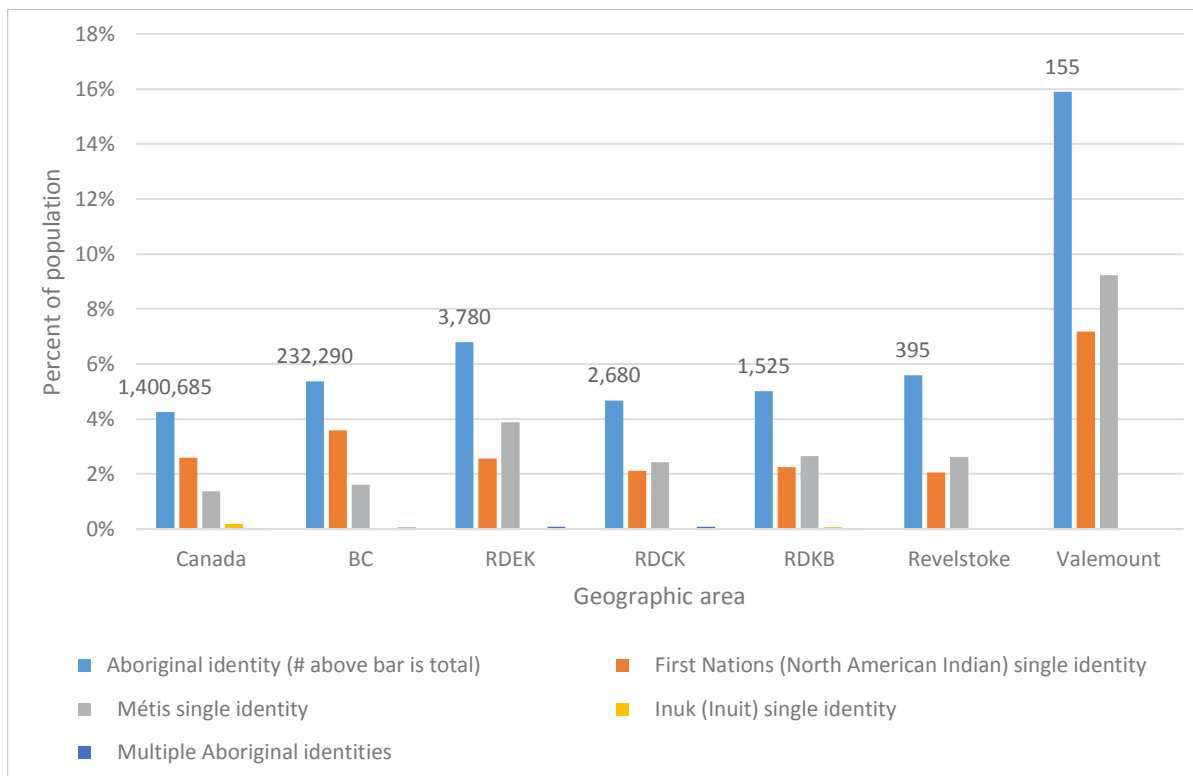


**Figure 6:** Percent of 2011 population by ethnic origin<sup>6,vi</sup>

<sup>vi</sup>As people can have complex ethnic backgrounds, a person may report more than one ethnic origin on this question, accounting for these numbers adding up to more than the total population (or more than 100%).

Perhaps unsurprisingly, European ethnic origin is the largest percentage across the region, the province, and the country. However, people of European origin within the Columbia Basin-Boundary ranges between 82% and 89%, 20 to 30% higher than provincially or nationally. People identifying as 'other North American' (e.g., Acadian, American, Newfoundlander, Québécois) ranges across the region, from 22% in Columbia-Shuswap Area B to 30% in Valemount – all higher than the provincial average. Overall, this measure suggests less cultural diversity within the Columbia Basin-Boundary region than compared with the province or country.

There is a continued need for efforts toward reconciliation across Canada with Aboriginal peoples.<sup>8</sup> Part of informed decision making in this area includes a basic understanding of the population. The overall percentage of the population identified as Aboriginal in the Basin-Boundary region ranges between 4% (RDCK) and 15% (Valemount) (see **Figure 7**). Columbia-Shuswap B is not included as zero people identified as having Aboriginal identity. Excepting Columbia-Shuswap B, the averages within the Columbia Basin-Boundary are similar to that of BC (5%), and higher than that of the country (4%). The percentage of the population who identify as Métis across the Basin ranges between 2% (RDCK) and 7% (Valemount), higher than both the provincial and national averages. No statistically significant portion of the population within the Basin-Boundary identified as Inuk (Inuit).



**Figure 7:** Percent of 2011 population who identify as Aboriginal<sup>6</sup>

## LANGUAGE

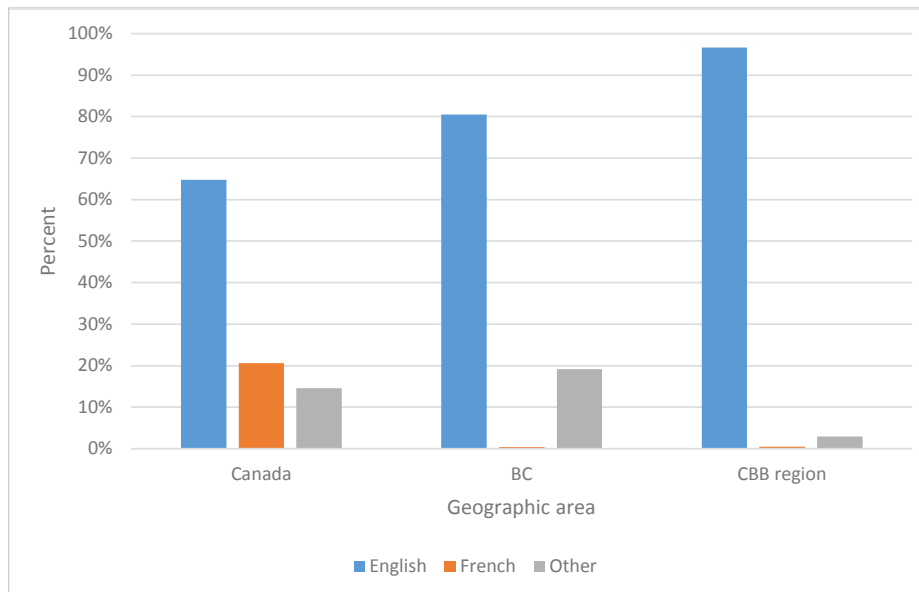
### WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

This indicator measures the percentage of Columbia Basin-Boundary region residents who speak English, French, or “other” languages most often at home. “Other” languages include Aboriginal languages and selected non-Aboriginal languages. This indicator also measures the number of different languages spoken across the region. Data for this indicator were gathered from the 2011 Census of Canada.<sup>4</sup>

These data provide insight into the cultural diversity of our region. The rapid demise of languages is a concern regarding cultural identity in an increasingly globalized culture.<sup>9</sup> In 2001, UNESCO adopted the Universal Declaration on Cultural Diversity that included cultural diversity as a “common heritage of humanity” and considers its safeguarding to be a concrete and ethical imperative, asserting cultural diversity “as necessary for humankind as biodiversity is for nature.”<sup>7</sup> While cultural diversity is difficult to quantify, one indication is thought to be the count of the number of different languages spoken in a region.<sup>9</sup>

### WHAT ARE THE TRENDS & CURRENT CONDITIONS?

The majority (96.7%) of Columbia Basin-Boundary region residents speak English most often at home. The proportion of Columbia Basin-Boundary region residents speaking French most often at home (0.4%) is similar to BC (0.4%), but is much lower than Canada (20.6%). Our region has a much lower percentage of people who speak other languages most often at home - only 2.9% compared to BC (19.1%) and Canada (14.6%) (see **Figure 8**). This is an indication that our region is less culturally diverse than BC or Canada. This is likely related to the fact that there are no large urban centres in our region which tend to support a higher diversity of language and culture (e.g., Vancouver, Toronto).



**Figure 8:** Language spoken most often at home, 2011<sup>4</sup>

Census data indicate that there are at least 60 different languages within the 2.9% “other” category in our region. These include languages such as Afrikaans, Cantonese, Chinese, Croatian, Czech, Danish, Dutch, German, Hungarian, Italian, Japanese, Korean, Panjabi, Polish, Russian, Spanish, Tagalog, and Ukrainian. Higher numbers

of people who speak other languages are generally found in the larger communities (e.g., Castlegar, Nelson, Cranbrook, Revelstoke, Golden, Trail). The communities of Roseland, Revelstoke, and Nelson are also home to most of our region’s French speakers. There are also Aboriginal languages spoken across our region which are not captured by the census.

Language, as well as religion and traditional practice, is an indicator of cultural diversity that could be further explored in our region, and compared to other rural regions across Canada. For more information related to our culture and society, see the [Community & Society Trends Analysis](#).



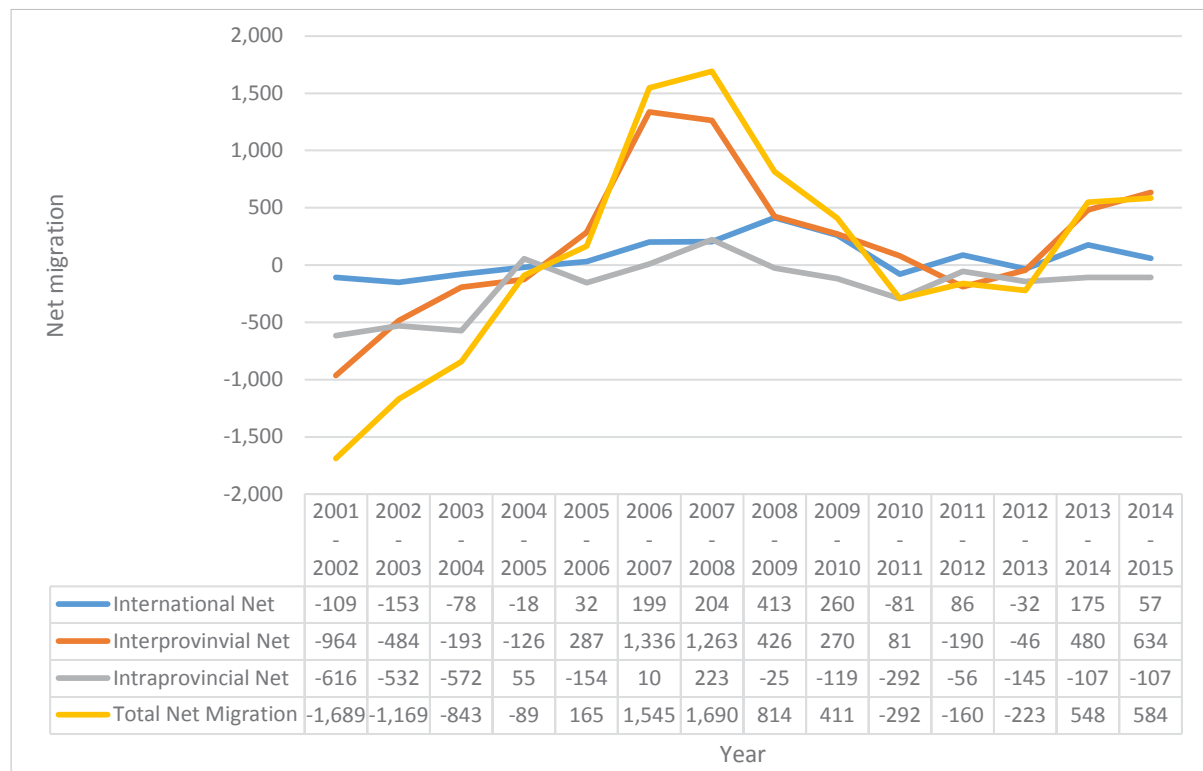
## MIGRATION

### WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

Another demographic indicator is migration – the movement of people. This indicator measures the movement of people into the Kootenay Development Region<sup>vii</sup>. International migration refers to people who move to the region from outside of Canada. Interprovincial migration refers to people who move to the area from another province, and intraprovincial migration refers to people who move to the area from elsewhere within the province. Data are sourced from BC Statistics.<sup>10</sup>

### WHAT ARE THE TRENDS & CURRENT CONDITIONS?

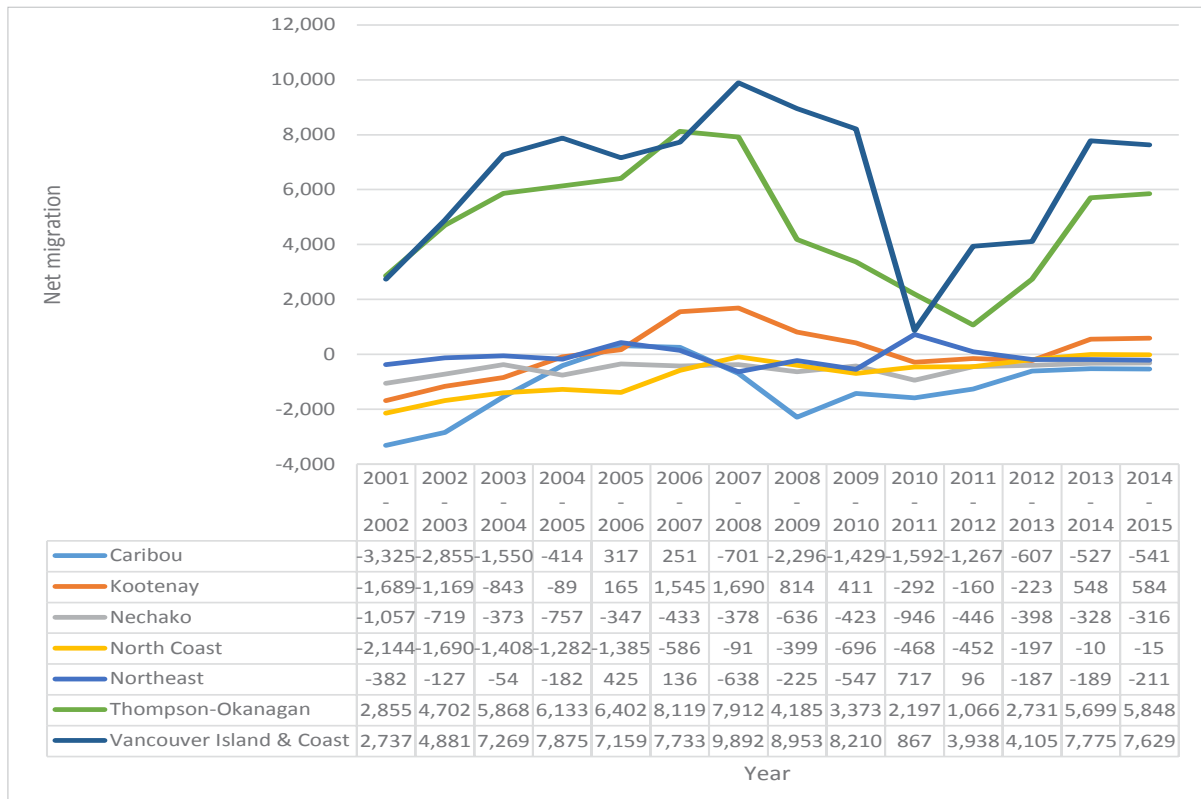
As shown in **Figure 9**, more people were entering the Kootenay Development Region than exiting from 2014-2015 (584). This net in-migration is similar to 2013-2014, where the net was a gain of 548 people. These positive net migration years differ from the years of net out-migration seen in 2010 to 2012, but is less than the net in-migration seen between 2006 to 2008. The bulk of in-migration to the region is interprovincial movement. Looking at migration data, as well as ethnic origin and language data, can help to identify and understand pathways for diversity in the region.



**Figure 9:** Kootenay Development Region migration from 2001 to 2015<sup>10</sup>

<sup>vii</sup>The Kootenay Development region includes all three Kootenay Regional Districts.

Migration trends in the Kootenay Development Region have been somewhat similar to trends seen in the Caribou, Nechako, North Coast, and Northeast Development regions, as shown in **Figure 10**. The Thompson-Okanagan and Vancouver Island & Coast Development Regions typically experience greater volumes of growth similar to that of the Lower Mainland-Southwest (not pictured). While the bulk of the Kootenay Development Region's migration is interprovincial, at a provincial level, migration is largely accounted for from international migrants.



**Figure 10:** Net migration for BC Development Regions for 2001 to 2015 (excluding Lower Mainland-Southwest)<sup>10</sup>

## STANDARDIZED MORTALITY RATIO

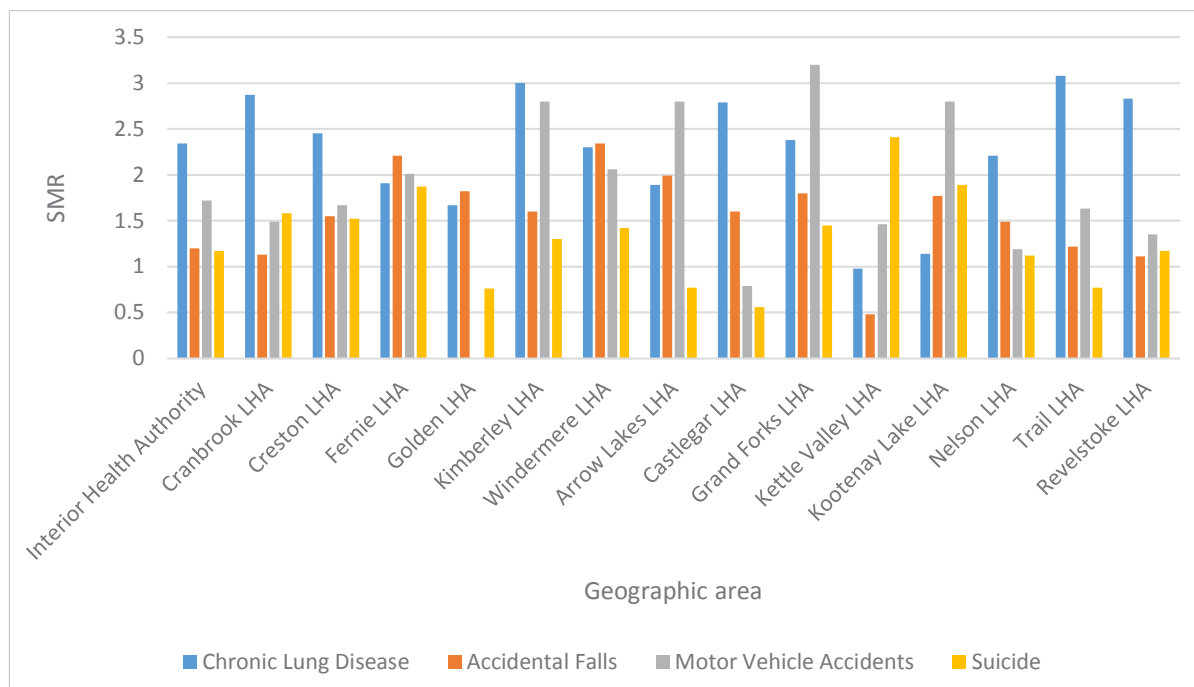
### WHAT DOES THIS MEASURE & WHY IS IT IMPORTANT?

Beyond basic demographic characteristics of our population are measures of other factors such as health, [employment](#), and [education](#). While health and wellness is a complex field, there are some simple measures we can look to. One of these measures is the Standardized Mortality Ratio (SMR), which compares the number of deaths within a specific area to the expected number of deaths for that area based on provincial age specific mortality rates – basically indicating if more or fewer people than expected died from particular causes.<sup>11</sup> When the SMR is greater than one (SMR>1) it means more deaths occurred than expected in that area, while a number less than one (SMR<1) means fewer deaths occurred than expected for that area.<sup>11</sup> SMR is considered to be an important measure because when it is tracked over time it can be an important indication of patient safety and quality of care, as well as helping to identify areas for improvement.<sup>12</sup>

### WHAT ARE THE TRENDS & CURRENT CONDITIONS?

The Interior Health Authority (IHA) compiled the SMR for all Local Health Areas (LHA) within the IHA catchment region, which includes the majority of the Columbia Basin-Boundary region. For each LHA within the Columbia Basin-Boundary the cause of death with the highest SMR (i.e., with more deaths than expected) was identified. Of the 14 LHAs in the region there are four causes of death where numbers were above what was expected: chronic lung disease, accidental falls, motor vehicle accidents, and suicide.

**Figure 11** shows the SMR for these four causes of death for each LHA, as well as for the whole of the IHA region. Full details, including the SMR for other causes of death, are available for each LHA, as well as additional information relating to each LHA and individual facilities (e.g., wait times) through IHAs [Population/Local Health Area & Facility Profiles](#).<sup>11</sup>



**Figure 11:** Standardized Mortality Ratio for 2007 to 2011 by Local Health Authority<sup>11</sup>

All four causes of death caused more deaths than expected (SMR>1) across the region, with the exception of chronic lung disease and accidental falls in Kettle Valley LHA, motor vehicle accidents and suicide in Castlegar LHA, and suicide in Golden LHA, Arrow Lakes LHA, and Trail LHA. What this may suggest is that these causes of death may be difficult to predict, prevent, or treat.

## SUMMARY

By tracking changes in the structure and characteristics of our population, decision makers are able to better plan for changing needs by adapting or changing policies, programs, and services. Demographic trends have the potential to impact critical services such as health, [education](#), and [infrastructure](#). Our region is predicted to be stable in terms of population, including growth and migration. Stability can make planning for needs more predictable, however, given that the population is aging this will change the needs and desires when it comes to services. We can also see this region is one with relatively low diversity in terms of ethnic origin compared to the province or the country, but with an average or higher than average Aboriginal population. There are potential opportunities for diversifying the region if barriers to diversification are identified and addressed. There are also opportunities to continue to build relationships and partnerships with First Nations.

### DEMOGRAPHIC TRENDS ANALYSIS DETAILS:

Author: Dr. Sarah-Patricia Breen and Lauren Rethoret, MRM  
 External Review: Heather Mitchell, Columbia Basin Trust

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*The Columbia Basin Rural Development Institute, at Selkirk College, is a regional research centre with a mandate to support informed decision-making by Columbia Basin-Boundary communities through the provision of information, applied research and related outreach and extension support. Visit [www.cbrdi.ca](http://www.cbrdi.ca) for more information.*